

REMARKS

Claims 1-7 and 10-12 are pending and under consideration in the above-identified application. Claims 13-23 were withdrawn pursuant to a restriction requirement dated May 29, 2008.

In the Final Office Action dated February 12, 2009, the Examiner rejected claims 1-7 and 10-12.

I. Double Patenting Rejection of Claims

Claims 1, 2 and 12 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4 and 8 of copending application No. 2007 0270527. In response to this objection, Applicants reserve the right to file an appropriate Terminal Disclaimer upon the issuance of either this application or the copending application. Accordingly, Applicants respectfully request withdrawal of this rejection.

II. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 1-7 and 10-12 were rejected under 35 U.S.C. § 103(a) as being anticipated by Yamada et al. (JP 2003-192925, 2005/0143502 as English equivalent) in view of Yoshida (US Publication No. 2002 0151631). Applicant respectfully traverses this rejection.

The references cited by the Examiner each teach a flame retardant additive that has vertical burning test results of UL94-V2. For example, Yamada et al. teaches biodegradable resin that includes a flame retardant additive and a hydrolysis inhibitor. Yamada et al., paragraph [0008]. As seen in Table 6, the biodegradable resin taught by Yamada et al. only has vertical burning test results of UL94-V2. Additionally, Yoshida teaches a nitrogen oxide as a flame retardant compound. Yoshida, Paragraph, [0009]. The nitrogen oxide flame retardant compound only achieves a vertical burning test result of UL94-V2. Yoshida et al., Table 4.

The claims, however, require a biodegradable resin composition that includes a flame retardant additive containing both a hydroxide *and* a nitrogen oxide compound. The hydroxide and the nitrogen oxide compound act synergistically when high heat (500°C and above) is applied to the resin. Specification, page 19. When the resin is heated, the nitrogen oxide compound yields nitrogen oxide based gases which react with the water generated by the heated hydroxide. *Id.* As a result, the biodegradable resins are converted to non-combustibles such as CO₂ or H₂O yielding higher flame retardant properties than if hydroxide is used by itself. *Id.*

The results in Table 2 indicate that the examples containing a biodegradable polysaccharide, a hydrolysis suppressing agent and flame retardant additive containing a hydroxide *and* a nitrogen oxide exhibit higher flame retardant properties namely, UL94V-1, than each of the cited references, which use either a nitrogen oxide flame retardant compound *or* a hydrolysis inhibitor. Accordingly, it would not have been obvious to combine the flame retardant additives of Yoshida et al. and Yamada et al. in order to achieve better UL94V results, because each of the cited reference teaches examples that exhibit flame retardant properties of only UL94V-2. *See* MPEP 716.02(a) & *Merck & Co. Inc. v. Biocraft Laboratories Inc.*, 874 F.2d 804 (Fed. Cir. 1989) (finding that evidence of greater than expected results can be shown by demonstrating an effect which is greater than the sum of each of the effects taken separately and that evidence of greater than expected results indicates non-obviousness). As such, the cited references fail to teach or even fairly suggest all the unexpected results demonstrated by required elements of the claims. Accordingly, the claims are patentable over the cited references. Thus, Applicants respectfully request that the above rejections be withdrawn.

III. Conclusion

In view of the above amendments and remarks, Applicant submits that all claims are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

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